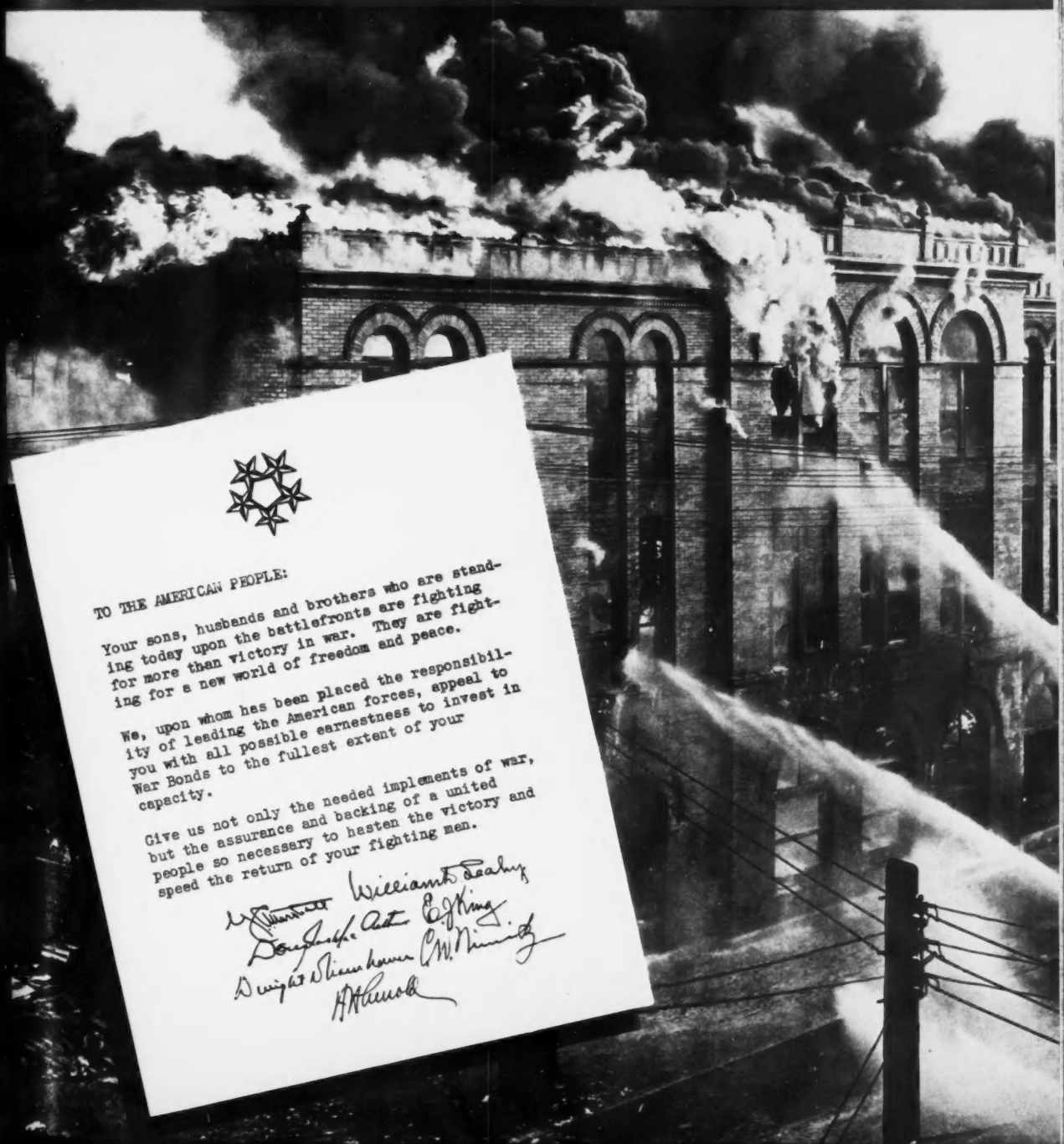
Volunteer Firemen

JUNE 1945

NATIONAL FIRE PROTECTION ASSOCIATION
INTERNATIONAL
60 Batterymarch Street Boston 10, Massachusetts



TO THE AMERICAN PEOPLE:

Your sons, husbands and brothers who are standing today upon the battlefronts are fighting for more than victory in war. They are fighting for a new world of freedom and peace.

We, upon whom has been placed the responsibility of leading the American forces, appeal to you with all possible earnestness to invest in War Bonds to the fullest extent of your capacity.

Give us not only the needed implements of war, but the assurance and backing of a united people so necessary to hasten the victory and speed the return of your fighting men.

William D. Leahy
Dwight D. Eisenhower
H. H. Arnold
Ernest J. King
C. W. Nimitz

AKRON DROP FORGED ROCKER RING

TRADE MARK

PATENT NO 2,073,824

COUPLING

Adding to the genuine ROCKERLUG the Features of Rocker Ring for Thread and Swivel Protection

A new standard of service life for fire hose couplings has been set by this Akron Drop Forged Rocker Ring Coupling with these important features:

- PROTECTOR RINGS
- HIGBEE CUT NON-CROSS THREADS
- HIGBEE INDICATOR
- TAPERED HOSE BOWLS
- TAPERED STILL THREAD SWIVEL ATTACHMENT

Protective rings or bands around male and female parts to guard and protect both male and female threads. Swivel is supported and suspended by these protective bands, preventing damage to the swiveling action. Uncoupled, both male and swivel ends are held clear of ground so that dragging or obstructions can do no harm to threads.

Drop forged material — more uniform composition for greater strength and longer service.

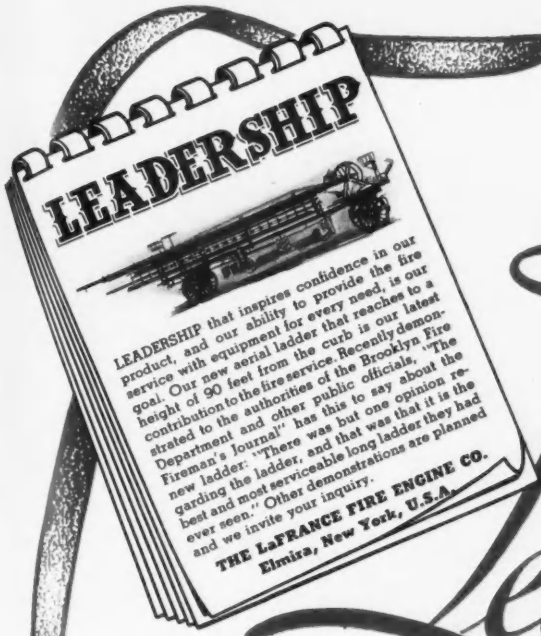
AKRON BRASS MFG. COMPANY, INC.
WOOSTER, OHIO

Restrictions Lifted

WPB Limitation Order L39, amended December 21, 1944, permits use of this drop forged alloy. Fire hose couplings may be purchased on an MRO priority rating under procedure covered by governing regulations.

AKRON BRASS

FIRE FIGHTING EQUIPMENT


LEADERSHIP
LEADERSHIP that inspires confidence in our product, and our ability to provide the fire service with equipment for every need, is our goal. Our new aerial ladder that reaches to a height of 90 feet from the curb is our latest contribution to the fire service. Recently demonstrated to the authorities of the Brooklyn Fire Department and other public officials, "The Fireman's Journal" has this to say about the new ladder: "There was but one opinion regarding the ladder, and that was that it is the best and most serviceable long ladder they had ever seen." Other demonstrations are planned and we invite your inquiry.
THE LaFRANCE FIRE ENGINE CO.
Elmira, New York, U.S.A.

Leadership

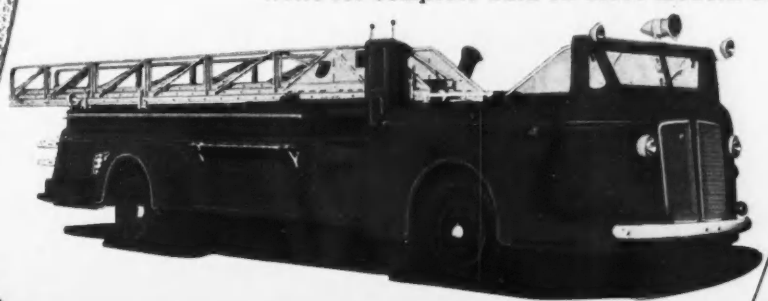
AMERICAN LA FRANCE FOAMITE

today carries a greater responsibility to the fire service than required 75 years ago when the above pictured aerial truck was built. Since that time refinement and improvement in aerial ladder and truck design has been almost continuous to meet the changing needs of the fire service. American LaFrance is building the most complete line of modern aerial ladder trucks for the fire service. Four wheel and tractor drawn types are available to meet every need. The line of 4-wheel aerials is complete with aerial ladders available in lengths of 65 feet, 75 feet, 85 feet or 100 feet. All models are amply powered for road performance in keeping with modern traffic requirements.

The all-steel aerial ladder is one man operated with hydraulic power. The entire ladder is constructed of high tensile strength, corrosion resisting U.S.S. Cor-ten steel, and is the strongest aerial ladder ever offered to the fire service. Every safety feature essential to the control and operation of the aerial ladder is built into the structure. The highly maneuverable, compact yet accessible design of the 4-wheel aerial is finding increasing favor of the fire service for such reasons as:

LOWER COST **BETTER DRIVER VISION**
SHORTER LENGTH **EQUAL UTILITY**
LIGHTER WEIGHT **GREATER STABILITY**
BETTER ROAD PERFORMANCE

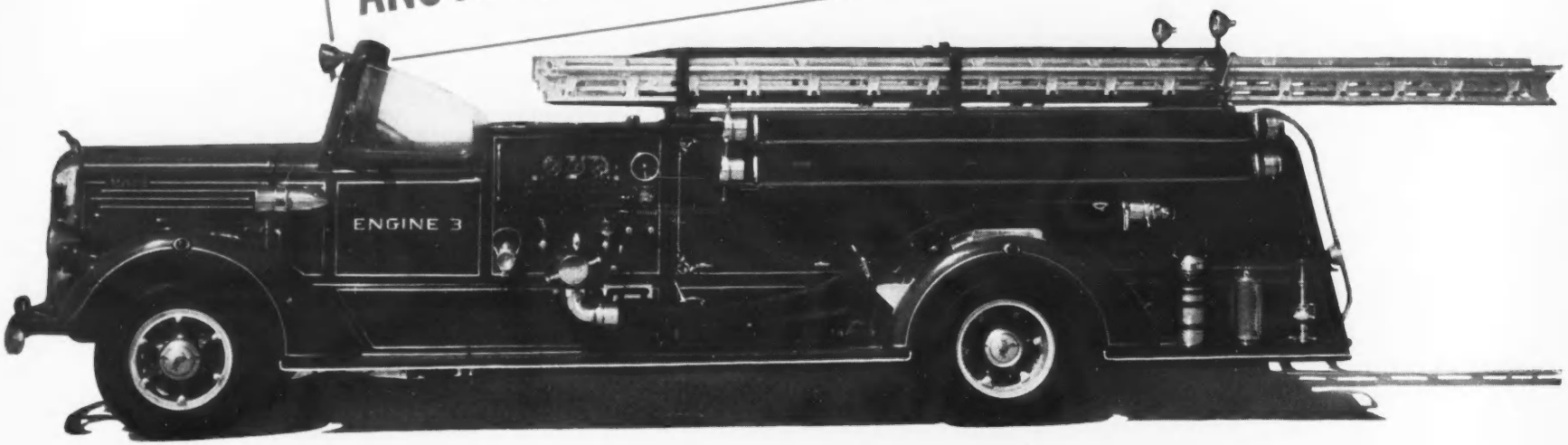
Write for complete data on these modern aerials.



Recent deliveries of these 4-wheel aerials have been made to:
Ithaca, New York
Hudson, Mass.
Eureka, Calif.
Houston, Texas
Lincoln, Nebr.

AMERICAN-LaFRANCE-FOAMITE CORPORATION
ELMIRA, NEW YORK, U. S. A.
LaFRANCE FIRE ENGINE and FOAMITE LIMITED
TORONTO, 9, ONTARIO, CANADA

ANOTHER MACK THAT'S SOMETHING SPECIAL!



There's one thing that is special about every piece of Mack fire-fighting equipment . . . that's tough, durable dependability!

This Triple Combination Pumper, owned by the City of Oceanside, California, is equipped with a specially-built unit to accommodate a 35 to 50 foot ladder. However, it was the well-known reliable Mack qualities that recently prompted the-firemen of Oceanside to order another Mack.

BUY WAR BONDS

MACK MANUFACTURING CORPORATION, FIRE ENGINE DIVISION
EMPIRE STATE BUILDING, NEW YORK 1, N. Y.

Mack
FIRE APPARATUS

If your community needs additional fire-fighting equipment or replacements, think of Mack. Remember, Mack Fire Apparatus is backed by the greatest engineering resources in the industry.

PERFORMANCE COUNTS!

Volunteer Firemen

Volume 12 Number 6

Published by the National Fire Protection Association, a voluntary non-profit organization, 60 Batterymarch St., Boston 10, Mass.

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INDEPENDENCE, Iowa, was the scene of this month's cover fire. On March 3, a fire started near the projection booth of a theatre in this old brick-joisted business block. A backdraft blew firemen from the building. The losses totaled $300,000. Chief Paul A. Soener said, "We have fought this building on our blackboard for years. However, it went just as we figured it would if it ever got a start in the theatre."

Flames apparently had gained headway in a concealed space over the auditorium before the first alarm was sounded.

Japs Fire-Bomb U. S.

ON May 22, the U. S. War and Navy Departments released information that the Japanese enemy is carrying out aerial bomb attacks against the United States. The release of this fact, known for some time to many persons including numerous public safety officials, makes it possible to organize a defense against fires that may result from these bombs.

Bombs, both of incendiary and anti-personnel types, are carried over the western and central areas of the United States by means of large hydrogen-filled balloons traveling at great height in the path of prevailing winds from the islands of Japan to the North American continent. The balloons are of gray, white, or greenish-blue paper, about 33 feet in diameter. This attack is entirely indescriminate, as it is impossible to control the direction of travel once the balloons are launched into the wind. The official announcement reports that no damage has been done by these bombs, but military authorities caution that in the event one or more of these bombs fall in a neighborhood, no publicity should be given to the incident which will help the enemy plot the course of the wind from the launching site to the place of descent. FBI or military authorities should be notified at once and the public cautioned not to handle the devices, as some of the bombs contain explosive charges that may readily go off if the bomb is handled by curiosity seekers.

It is possible that as dry weather comes during the summer and fall, greater numbers of bomb-carrying balloons may be sent over in an attempt to set fire to forest and grain lands.

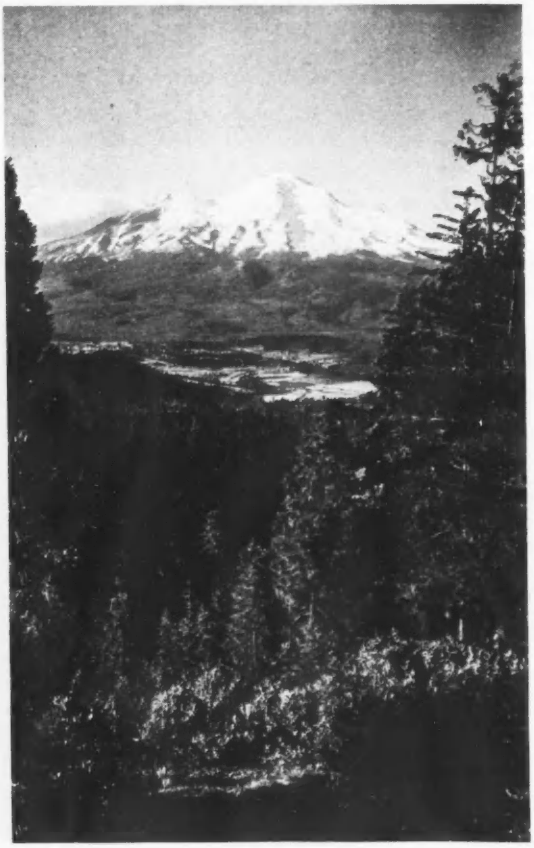
THIS brings us to the matter of fire defense against this new form of enemy attack. It is extremely unlikely that any concentrated attack can be carried out on any given American city or town. However, we are all aware of the importance of our food supplies to the entire world at this time. We cannot afford to let grain fields or food storage properties be destroyed by chance fire bomb attack. At the start of the war, millions of dollars were spent in the OCD program to provide fire fighting equipment, including hose, pumping engines, and pump tank extinguishers to guard against possible incendiary air raids which fortunately never materialized.

However, the chance of enemy bombs falling anywhere in the United States is with us once again. Possibly two-thirds of the area of continental United States may be subject to actual air attack by this new enemy weapon until the Japanese home islands are subjugated. The OCD has been abolished by presidential action and thousands of pieces of OCD pumping equipment are in disuse awaiting disposal as surplus property.

At the same time there are thousands of organized fire departments in the states west of the Mississippi River that do not have even a single pumping engine to protect vital plants and food stocks against fire. Scarcity of critical materials has prevented the smaller communities from obtaining priorities for apparatus during wartime. Even the recent removal of priority restriction L-43 will not make sufficient equipment immediately available.

With government officials urging the public to recognize that despite victory in Europe, the United States is still at war with a cruel enemy, it seems incongruous that the government itself has no policy as to the utilization of OCD equipment. It would seem in order for fire department members in all western and middle western states to demand of their congressmen that the OCD pumpers and other fire equipment be transferred at once before the summer and fall dry seasons, so that every organized fire department, no matter how small, will have at least one pumping unit for defense against this new form of bomb attack, as well as protection for vital plants and commodities in these communities.

EMPIRE STATE BUILDING, NEW YORK 1, N. Y.



To Whom It May Concern:

THIS IS TO CERTIFY THAT No._____

_____

IS A MEMBER IN GOOD STANDING IN THE MOUNT SHASTA FIRE DEPARTMENT AND IS NEEDED TO PROTECT LIFE AND PROPERTY WITHIN THE CITY OF MOUNT SHASTA AND THE MOUNT SHASTA FIRE DISTRICT IN CASE OF AN EMERGENCY.

Date Issued_____ Date Expires_____

_____ _____

Member Fire Chief

This membership card is held by every member of the Mount Shasta Fire Department. A new one is issued every six months. It allows firemen to pass on closed roads, or to travel through ordinarily restricted areas.

First aid training is conducted once a year. For emergency equipment, the department has a resuscitator, 2 stretchers, 4 first aid kits, and 25 blankets.

The department is supported by taxes, about $1,000 from the city, and from the fire district about $1,200 per year. The firemen are paid on a basis of drills and alarms, attended and answered: $.75 per drill, $1 an hour for a city fire, and for a district fire, $1.50 per hour.

The training program includes standard fire training for fighting oil fires and structure fires. Every fireman knows how to operate any piece of apparatus in the station. The chief selects the men for contest participation at the Wednesday night practice meetings.

In the annual fire report for the city and the fire district, Chief Frank Melo released the information that the department fought 16 fires inside the town, and 20 in the fire district during 1944. In the city, property involved had an estimated value of $84,000 for buildings and $50,500 for contents. The respective loss on each was $2,789.10 and $2,945.67, or a total loss of $5,734.77 on property values at $134,500.

FIRE PROTECTION FOR MOUNT SHASTA

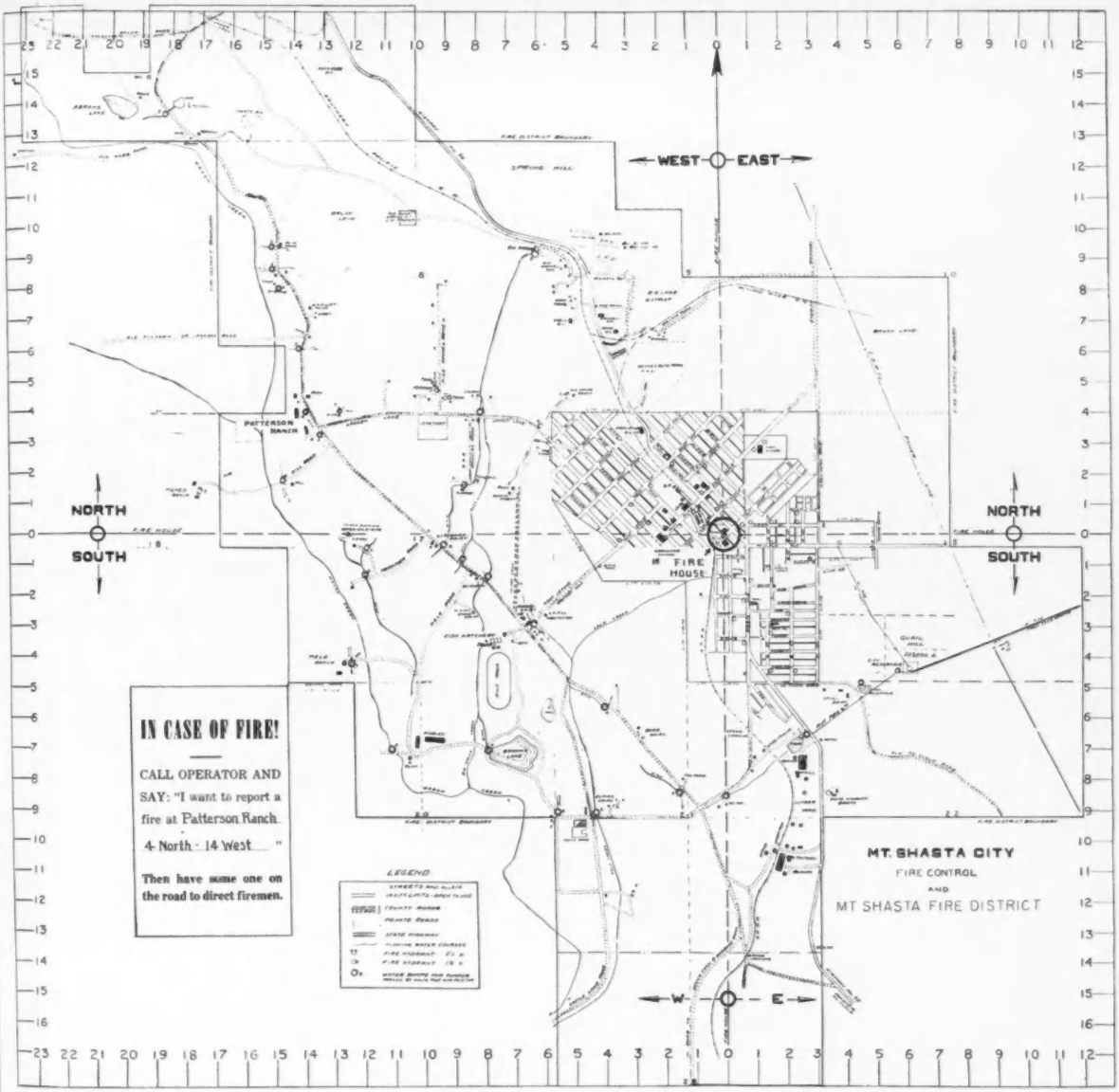
MOUNT SHASTA, California, located in the Shasta National Forest area, is a sportsman's world of camping, lake and stream fishing, deer hunting, and all kinds of mountain recreation. The world's largest trout hatchery is operated by the State of California in Mount Shasta. Under the direction of the Mount Shasta Snowmen, winter sports are conducted from December to March.

The Mount Shasta Fire Department was organized in 1925 to serve the city, about 4 square miles of territory, and its approximately 2,000 inhabitants. In addition to the regular fire hazards of various old wooden structures about the city, the department serves the Mount Shasta Fire District.

The department owns three combination trucks, one with a 500-gallon Hale pump. As soon as war conditions allow, the department plans to purchase a 1,000-gallon pumper, and 1 small piece of equipment to speedily carry a small water tank and fire fighting tools.

The fire station is located in the city hall, at the geographical center of the community. There is only one fire company organization but each piece of apparatus has a captain and a lieutenant. The youngest members of the department are of high school age.

The hose loader, pictured below in closeup and in operation, is a convenient method, used by the Mount Shasta Fire Department, of placing hose in a truck. The materials are few and easy to obtain. The circular table is fitted to revolve on a 1½-inch pipe, which is based on a service station sign holder. The table is 3 feet in diameter, and the overall height of the hose loader is 3½ feet.



IN the letter that accompanied his volunteer department report, Chief Melo said:

"Here in Mount Shasta we organized a fire district in 1939. The purpose of this map is to get the correct location and give the firemen an idea of the location of the sump, how to lay the lines and also to place the pumper. We find it saves time and we also do not have to keep track of the names of the people, should they move from one location to another. It also helps on the large farms, where there are a number of houses, to get to the correct one.

"Every house in the district has a card [note inset in lower left corner of map.—Editor]. We give them their number and in case of a fire, the number is received at the fire hall. The numbers are located on the map and where their strings intersect, that is the location of the fire.

"The map at the fire hall has a nail over each number. A fish line is at No. O's spot, with a lead weight attached to each. This spot is the location of the fire hall. (Where these lines intersect.) If firemen arrive late at the fire hall, they simply have to look at the map and get the correct location at once."

Pumper Races in Texas

AT the meetings of the Gulf Coast Firemen's Association, the highlight of the evening is the pumper race in which all thirty-two departments participate. Chief E. M. McGowan, Garden Oaks Fire Department, Houston, Texas, describes the manner in which they are held.

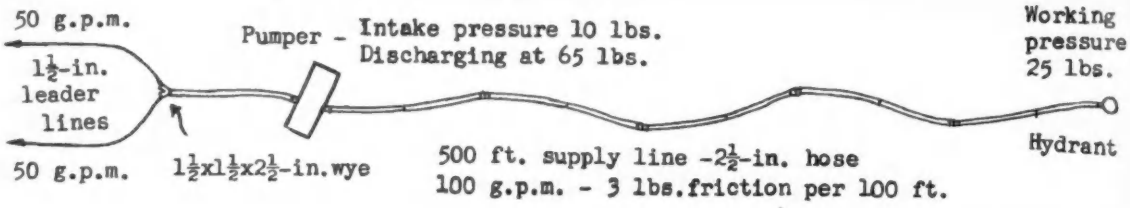
The race is run by 6 men: 2 in cab; 1 on each side on running board; and 2 on tailboard. All men must have their hands raised and those on the outside must be facing the truck, while waiting for the starting signal.

A pumper is spotted by a fire hydrant so that a 10-foot section of hard suction hose can be connected. The hard suction is free in the trough in which it is carried so that it may be quickly lifted off the truck. The cap on the hydrant is screwed on loosely by hand, the valve is freed from a tight "off" position. The hydrant wrench is laid on the floor of the cab on the side nearest the hydrant. The coupling between the second and third lengths of 2½-inch hose is made into a loose "hand tight." This is where the break is made to connect the pumper discharge valve. The nozzle is upright on the tailboard.

The idea of the race is as follows: The hard suction must be connected and the hydrant opened while 100 feet of 2½-inch

(*Continued on page 22*)

SUPPLYING TWO LEADER LINES - PUMPER 500 FEET FROM HYDRANT



SUPPLYING 1½ INCH HOSE LINES

with pumper placed near the fire rather than at the hydrant

FIRE departments with one pumper — and that includes a very high proportion of all volunteer organizations — are faced with an ever-present dilemma at the early stages of almost any building fire in areas where hydrant pressures are not adequate for good direct streams. Should they go to work with their booster line or take the time to lay out a 2½-inch line and place the pumper at a hydrant? Increased confidence in the effectiveness and striking power of 1½-inch hose has caused many members of volunteer departments to ask themselves whether a layout using 1½-inch lines from their pumper, stationed near the fire, does not permit them to back up their booster line with more powerful streams; at the same time keeping the apparatus near at hand so that ladders and other tools and appliances will be readily available.

It is fast becoming recognized that streams from 1½-inch hose with ½-inch tips are more desirable than 2½-inch lines for the average residential fire. The smaller lines are more easily handled and require less water than the hard-to-maneuver 2½-inch lines. In fact, it might be said that there is ordinarily little excuse for taking a cumbersome 2½-inch line inside any dwelling in any case where there is hope of saving the property. Two or three 1½-inch lines, wyed off the end of a 2½-inch line, make it possible to attack the fire from several points at once with brisk streams and still use less water than a single 2½-inch line. This is important where fire is in several areas of a structure, such as partition and attic spaces. Of course, where fire involves mercantile properties or any other structures having large areas and appreciable amounts of combustible content, there should be no delay in connecting the pumper to the hydrant and getting heavy streams ready to back up the booster equipment. The evolution under consideration here is intended only for residential districts.

NOW how much of a hydrant supply do we need to permit the use of two 1½-inch lines through a pumper placed near the fire and supplied by a 2½-inch feed line laid out from the hydrant as the apparatus approaches the fire? If our hydrants in residential areas will give as little as 25 pounds pressure with 100 gallons flowing, we can have two good 1½-inch lines with the pumper as much as 500 feet from the hydrant. Any hydrant that will do less than this is certainly too unsatisfactory to be considered as a source of fire protection.

If we are fortunate enough to have a hydrant that will give us 40 pounds working pressure with 150 gallons flowing, we can supply three good 1½-inch lines with the pumper 500 feet from the hydrant.

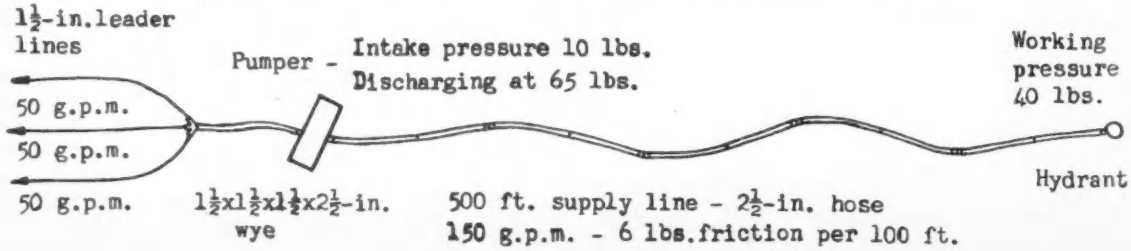
It will be seen that each 1½-inch line will be delivering about 50 g.p.m. With two such lines in service, the 2½-inch feed line from the hydrant to the pumper will be supplying 100 g.p.m. and will be losing about 3 pounds per 100 feet of hose due to friction loss. With three 1½-inch lines in service we will be losing approximately 6 pounds per 100 feet of hose in the 2½-inch supply line from hydrant to pumper.

The flow from two 1½-inch lines is roughly equal to that from a ¾-inch tip on a single 2½-inch line. The flow from three 1½-inch lines is about that of a ⅞-inch tip on a 2½-inch line. The flow from four 1½-inch lines is almost the same as a single 1-inch tip on a 2½-inch line. This latter flow (200 g.p.m.) will cause 10 pounds friction loss per 100 feet of supply line. As we should always try to have at least 10 pounds pressure on the intake side of our pump to prevent collapse of our suction line, this flow would indicate that we should keep within 300 feet of the hydrant when taking 200 gallons or more from a hydrant with a working pressure of 40 pounds. For each 10 pounds additional working pressure at the hydrant, we can place our pumper an additional 100 feet away from the hydrant and still get 200 g.p.m. However, it should be remembered that only the pressure available when water is flowing at the desired capacity may be counted. Static pressure, registered only when the flow is shut off, is of no use to us in such operations.

Shown on this page are some of the layouts discussed. They can be summed up as follows. Almost any hydrant can supply two 1½-inch lines through a pumper 500 feet away. Most hydrants in residential areas can supply three good 1½-inch lines with a pumper 500 feet away. If four 1½-inch lines, or a direct 2½-inch line are to be used, the pumper should not be much more than 300 feet from the hydrant unless flow pressures of more than 40 pounds are available.

(Continued on page 20)

SUPPLYING THREE LEADER LINES - PUMPER 500 FEET FROM HYDRANT



Let's Get Acquainted —

WHAT NEW EQUIPMENT WILL WE BUY?

While a few priorities for new apparatus have been granted (mostly to large cities) in the past 42 months, most of the smaller departments have had to merely whet their appetites for new and much needed fire apparatus. Now that WPB limitation order L-43 restricting the manufacture of fire apparatus has been removed by Washington, it is interesting to know just what equipment fire departments are planning to buy with that money they have saved toward improved postwar fire protection. A recent survey of N.F.P.A. member fire companies asked whether member departments were planning to buy new apparatus after the war, and if so, what types. The results thus far received, as given below, are interesting because they show the trends in the types of fire equipment that will be purchased in the near future.

OF the replies to the question about new apparatus, some three-fifths of the departments showed a pretty good idea of the types of equipment they want. The other departments, some 222, were not in the market or have not made up their minds as to what they want.

Of 333 new pieces of apparatus definitely wanted by N.F.P.A. member companies, 183 were various types of pumpers. These included 8—1,000 g.p.m., 30—750 g.p.m., 2—600 g.p.m., 38—500 g.p.m., 18 rural pumpers, 12 pumper-ladder "quad" combinations, and 75 pumpers of unspecified size or type. It is interesting that where the size of pumpers was specified, over half were sizes larger than 500 g.p.m., showing that more departments are recognizing the advantages of greater pumping capacities. A number of departments reported that they wanted these units to replace older machines of more limited capacity.

In addition to the 12 pumper-ladder trucks, some 42 departments want new ladder trucks. The aerial type has grown in favor since pre-war days and 25 departments specified aerials or junior aerials (65 feet) as against 17 ordinary service ladder trucks. This shows appreciation of the advantages of mechanized equipment over manually raised ladders.

Another interesting feature was a marked interest in specialized rural fire apparatus. Eighty-two units chiefly for rural use were specified out of 333 new pieces listed for all types. These included 38 fog or high pressure trucks, 26 rural tank trucks with capacities up to 2,000 gallons, and 18 rural pumpers with large booster tanks. Eight departments wanted equipment for grass or woods fires.

Among the other items listed were: light utility truck 7, ambulance 6, rescue truck 5, and hose truck 5. First aid truck, squad truck, salvage car, new alarm system, new fire whistle, 1 each.

That there is not much demand for suplus war goods of doubtful condition and efficiency, was indicated that only 1 department expressed interest in a trailer pumper and but 2 mentioned jeeps. Apparently bigger and better red engines will be the order of the day when we can get them. What some of the member departments are thinking about in the matter of new apparatus is listed here.

YUMA, ARIZ., three 750 g.p.m. pumpers.

ASHLAND COUNTY (San Leandro), CALIF., 1,000 g.p.m. pumper and rescue squad truck.

BRAWLEY, CALIF., 1,000 g.p.m. pumper.

LAGUNA, CALIF., high pressure pumper.

REDDING, CALIF., replace old pumping engine now in service.

SCOTIA, CALIF., 750 g.p.m. pumper.

SOUTH SAN FRANCISCO, CALIF., aerial ladder and two 750 g.p.m. pumpers.

COLLEGE VIEW DISTRICT, COL., to place pumper on its second truck.

EAST WOODSTOCK, CONN., The Muddy Brook Fire Dept. plans a custom built truck body with hose and accessories

MIDDLETOWN, CONN., Russell Fire Company considering tank truck for rural fires.

ROWAYTON, CONN., Hose Company No. 1 wants booster truck.

STAMFORD, CONN., Turn of River Fire Dept., wants a squad car. May obtain pumper later.

WATERTOWN, CONN., ladder truck or quadruple-combination truck.

WOODBRIDGE, CONN., a pumper and booster truck.

CLAYTON, DEL., Fire Co. 1, high pressure pump.

TALLEYVILLE, DEL., ladder truck and pumper to be housed in new station.

BELLE GLADE, FLA., 1 ton booster truck for first runs, grass and "muck" fires.

COCOA, FLA., Volunteer F. D. wants 500 g.p.m. pumper.

DELRAY BEACH, FLA., 500 g.p.m. pumper.

TARPON SPRINGS, FLA., 500-gallon tank truck for grass fires.

GOODING, IDAHO, considering aluminum ladders, uniforms, and rural fire truck.

MULLAN, IDAHO, 500 g.p.m. pumper and new hose. "That is hose that will stand hard use."

RIGBY, IDAHO, light pumper for service outside city.

ARLINGTON HEIGHTS, ILL., utility truck with portable lighting equipment.

BROOKFIELD, ILL., ready to purchase 65-foot aerial and plans for 750 g.p.m. pumper.

GRAND RIDGE, ILL., fog fire fighting equipment.

GRAYSLAKE, ILL., fog type equipment.

LAKE ZURICH, ILL., tank truck for rural district.

McLEAN, ILL., the Mt. Hope-Funks Grove Vol. F. D. wants 2,000-gallon tank wagon to follow pumper to rural fires.

MADISON, ILL., 500 g.p.m. pumper to replace 350 g.p.m. pump.

NAPERVILLE, ILL., pumper and junior aerial.

NORTHLAKE, ILL., will replace 500 g.p.m. pumper.

PALOS HEIGHTS, ILL., considering Diamond type or International truck with 2,000-gallon tank and pump.

PARK RIDGE, ILL., 2 pumpers and combination aerial ladder.

RIVER FOREST, ILL., replace 750 g.p.m. pumper.

URBANA, ILL., the University of Illinois, plans 65-foot aerial, and hose truck.

WESTERN SPRINGS, ILL., wants larger salvage truck.

WOOD RIVER, ILL., 500-gallon pumper, service truck and hose.

WOODSTOCK, ILL., hopes for a rural truck.

YORKVILLE, ILL., Bristol Fire Company, 1,000 gallon tank truck and 2 stage high pressure pumps

DILLSBORO, IND., township to purchase community truck, probably high pressure unit with 500-gallon tank.

GALVESTON, IND., interested in government surplus chemical and fog pumps.

LAWRENCE, IND., quad for rural use.

ZIONSVILLE, IND., combination rural and city pumper.

ATLANTIC, IOWA, triple combination to replace 350 g.p.m. pumper.

BREDA, IOWA, high pressure for rural fires, and two stage centrifugal pump.

ELDORA, IOWA, all-purpose truck or combination ladder.

GRAND JUNCTION, IOWA, pumper with tank for farm fires.

GRINNELL, IOWA, ready to buy a 600 g.p.m. pumper.

IOWA FALLS, IOWA, pumper-ladder combination.

MONTROSE, IOWA, hope for truck with water tank for rural fires.

ONAWA, IOWA, have applied for rural truck.

BURLINGTON, KAN., 500 g.p.m. centrifugal pump.

CHANUTE, KAN., 65-foot junior aerial.

ELLIS, KAN., small pumper for country fires.

McPHERSON, KAN., quad pumper-ladder truck.

BOSSIER CITY, LA., high pressure pump.

CHURCH POINT, LA., "fog" pump.

EUNICE, LA., 750 g.p.m. booster tank.

JENNINGS, LA. Pumper with high pressure pump, also parish truck.

LAFAYETTE, LA., Hobo Volunteér Fire Co., wants ladder truck.

TENSAS, LA., Newellton Fire Dept., wants 500 g.p.m. pumper.

THIBODAUX, LA., 750 g.p.m. pumper.

CUMBERLAND, ME., 500 g.p.m. pump. Hope to build new station at Cumberland Center to house Engines 1 and 2.

HARRISON, ME., floodlight outfit. Hope to replace old 300 g.p.m. Dodge.

NORTHEAST HARBOR, ME., portable pump for woods and grass fires.

RICHMOND, ME., 500 g.p.m. pumper.

ROCKLAND, ME., aerial.

SANFORD, ME., 65-foot junior aerial and 750 g.p.m. centrifugal pump.

SPRINGVALE, ME., new fire alarm system.

JESSUP, MD., combination pumper-ladder.

LA PLATA, MD., engine to carry wide range of equipment on rural runs.

ODENTON, MD., small truck with front end pump for woods and chimney fires.

ORCHARD BEACH, MD., Mack with 500 g.p.m. front end pump.

RIVIERA BEACH, MD., ambulance.

SNOW HILL, MD., pumper with large tank for rural fires.

UPPER MARLBORO, MD., Marlboro Fire Dept., 1,000-gallon tank wagon on type 85 Mack chassis with 400 g.p.m. pump.

DALTON, MASS., combination pumper and forest fire truck.

SWANSEA, MASS., 1,000-gallon tank truck for Company 3.

UXBRIDGE, MASS., 500 g.p.m. pumper.

LIVONIA TWP., MICH., another combination pumper to serve one-half of township. Present truck to serve one-half of area.

MUSKEGON TWP., MICH., 500 g.p.m. pumper and 400 g.p.m. pump for tank truck.

OTSEGO, MICH., 750 g.p.m. pumper.

ROMEO, MICH., purchasing 500 g.p.m. pump with 6-man cab and 400-gallon tank for rural work.

SOUTH RANGE, MICH., to replace chemical tank with booster pump.

STURGIS, MICH., 500 g.p.m. pumper for rural fires.

WATERFORD TWP., MICH., pumpers with high pressure pumps.

ANOKA, MINN., to replace service ladder truck.

BLACKDUCK, MINN., rural truck.

CANBY, MINN., high pressure type with latest model.

CLEVELAND, MINN., either pumper or high pressure fog on new booster truck.

COLUMBIA, MINN., quad pumper-ladder truck.

CROOKSTON, MINN., aerial ladder.

DEERWOOD, MINN., pumper for second truck.

HOPKINS, MINN., first aid truck.

MOORHEAD, MINN., 500-gallon enclosed pumper.

RED WING, MINN., 500 g.p.m. pumper.

ROCHESTER, MINN., aerial ladder.

WHITE BEAR LAKE, MINN., chassis to carry 2,000-gallon tank for rural fires.

CARUTHERSVILLE, MO., high pressure fog truck, 400-gallon booster tank with front end pump and some type of ladder.

HERMANN, MO., may mount high pressure pump on rural truck.

WASHINGTON, MO., 500-gallon or larger pump for high pressure.

HAMILTON, MONT., 500-gallon rural booster with high pressure pump.

POLSON, MONT., 750 g.p.m. pumper.

ALLIANCE, NEB., rural truck with large booster tank.

HASTINGS, NEB., replace present ladder truck with aerial.

WAHOO, NEB., 500 g.p.m. pump. Also considering high pressure fog.

HANOVER, N. H., 2 pumpers at least.

LITTLETON, N. H., ladder truck.

MEREDITH, N. H., 1 trailer hood and ladder truck, and forest fire truck. Probably made by department.

WOLFEBORO, N. H., 750 g.p.m. pumper.

CARTERET, N. J., interested in an aerial. Want a new central fire house.

CEDARVILLE, N. J., combination booster, hose and ladder truck.

CHATHAM, N. J., 750 g.p.m. pumper.

CHATHAM TWP., N. J., Long Hill Vol. Fire Co., 500 g.p.m. pumper.

CLINTON, N. J., service truck.

HADDONFIELD, N. J., Haddon Fire Co., junior aerial and pumper.

HAMILTON TWP., N. J., the 4th District, 1,000 g.p.m. pumper to replace 600 g.p.m. unit.

MORRIS TWP., N. J., city service truck or possibly an aerial.

PENNSAUKEN TWP., N. J., Delaware Gardens Fire Co., has requested priority for 500 g.p.m. pump and junior aerial.

CARLSBAD, N. MEX., rural apparatus with large water tank.

CLOVIS, N. MEX., high pressure fog.

HOBBS, N. MEX., 500 g.p.m. and 750 g.p.m. pumpers as replacements. Two-way radio in connection with police department, and a fire alarm system is planned.

MELROSE, N. MEX., high pressure truck with large tank.

ALLEGANY, N. Y., jeep.

AMAWALK, N. Y., Somers Vol. Fire Dept., pumper and rescue truck.

COBLESKILL, N. Y., 500 g.p.m. pumper.

EVANS CENTER, N. Y., tank truck.

FLORIDA, N. Y., portable pump.

LITTLE VALLEY, N. Y., utility truck with large booster or high pressure.

MINEOLA, N. Y., to replace 750 g.p.m.

MORRISVILLE, N. Y., would like high pressure truck for rural work.

PORT BYRON, N. Y., rural pumper.

RICHMONDVILLE, N. Y., auxiliary pumper and 40-foot ladder.

ST. JAMES, N. Y., 500 g.p.m. to replace 1924 pumper.

WATERVILLE, N. Y., combination ladder and pump truck.

WEST SAYVILLE, N. Y., booster truck, high pressure.

MARION, N. C., high pressure combination.

ADAMS TWP., OHIO., rescue squad truck, intend to build new fire house.

ANDERSON TWP., OHIO, ambulance.

CANFIELD, OHIO, at least 800-gallon tanker.

CARROLLTON, OHIO, both high pressure and 500 g.p.m. pumps with 400-gallon tank.

GRANDVIEW HEIGHTS, OHIO, replace 350 g.p.m. pumper.

MADEIRA & INDIAN HILL, OHIO, pumpers, truck for field fire work, ambulance and life saving squad.

NAVARRE, OHIO., combination hose, ladder and pumper.

TRILBY, OHIO., committee working on plans to secure a rescue truck.

UTICA, OHIO., pumper for rural fires.

WAYNESBURG, OHIO., fog pumper with tank and hose bed.

WESTERVILLE, OHIO., city pumper, and fog or front mount for township.

EDMOND, OKLA., rural truck with large water tank.

WAGONER, OKLA., 750 g.p.m. pumper.

McMINNVILLE, ORE., probably 500 g.p.m. rural pumper with 1,000-gallon tank.

SUBLIMITY, ORE., fast moving equipment with 100-gallon tank and some kind of fog equipment.

THE DALLES, ORE., 500 g.p.m., for proposed residential station.

BARRETT TWP., PA., another pumper possibly with high pressure fog.

BRYN ATHYN, PA., city service ladder truck with high pressure fog.

CLARKS SUMMIT, PA., speedy light weight high pressure fog truck.

ELKINS PARK, PA., the Ogontz Fire Co. plans new fire house.

GREEN RIDGE, PA., particularly interested in high pressure fog.

HUNTINGDON, PA., Fire Co. 1 wants ladder truck.

(Continued on page 18)

A fire on the evening of February 5 caused $500,000 damage to this department store in Kalamazoo, Michigan. The cause was unknown, but the spread of the fire was attributed to the utter lack of sprinklers or fire walls, according to Chief J. F. Van Atta. The building was about 75 years old with open stairways and elevator-shaft.

Firemen found entire building involved and shortly before the fire was under control the walls fell. A flareup occurred at 2:30 in the morning, raging out of control for two hours.

At 5:48 A.M., on April 17, fire was discovered in the Detroit, Michigan, Armory. A civilian fireman, asleep in the basement, awoke to find the room filled with smoke and some flame. The fire had apparently started from a short circuit in cables passing through the floor near a metal paper chute.

The Armory, completed in 1898, was now used by the Michigan State Troops and the Veterans' Reserve for drill and storage of arms and equipment. Large amounts of uniforms and guns were lost.

The fire area extended throughout the basement, drill room or auditorium, and to the roof. Fire officials were reported as saying the walls would have to be razed. The loss totaled $55,000.

A Lockheed C-60 was taking off from Wright Field, Dayton, Ohio, March 5, when the ship apparently went into a power stall, slipped sideways and swerved, crashing into the side of a modification hangar. An explosion occurred immediately, as the plane struck a B-29 and a P-51, and octane gasoline ignited, causing fire inside the hangar. All told, 9 planes were involved in the crash fire.

Difficulty in extinguishing magnesium metals caused re-ignition of pools of gasoline about the floor of the hangar.

Five men in the plane died, and three others in the hangar were killed. Total losses reached $3,000,000, largely the result of experimental aircraft destroyed.

GOOD FIRE FIGHTING for VOLUNTEER DEPARTMENTS

by WARREN Y. KIMBALL, Editor

(Extracted from address delivered at Nebraska State Fire School, Grand Island, April 25.)

WHAT is good fire fighting? Is good fire fighting for volunteer departments any less efficient than the standard for good fire fighting performance expected from paid departments? Briefly, good fire fighting for either paid or volunteer departments might be said to be the limitation of fire loss to the minimum damage possible, with regard to the situation as it exists when the first fireman arrives.

False definitions of good fire fighting can be very misleading. We can drown out a fire. We can save exposures when we have failed to put out fire that should have been controlled. We can do considerable needless damage through careless fire fighting operations. We can be too cautious with regard to possible structural damage and actually cause increased fire loss by failing to ventilate a building properly or by failing to open up the walls and partitions through which concealed fire may be spreading. In some respects, fire is like a cancer — it must be thoroughly removed with no trace remaining.

In fire fighting techniques, modern volunteer fire departments, properly trained, can and do have efficiency equal to paid departments. The chief disadvantage of the volunteer fire service is slower mobilization following receipt of a fire call. To a considerable extent this handicap can be overcome even where fulltime apparatus operators are not employed. To achieve increased speed in mobilization, little personal habits of each volunteer fireman may be important factors. Is each volunteer fireman always ready at any time of day or night to respond immediately to a fire? Often the infrequency of calls may catch us napping and we may wonder where we left our fire cloths or perhaps the wife has moved the night "fire hitch" to a less conspicuous location and we lose a few moments in getting started. The paid fireman responding to night calls has his night hitch or turnout beside his bunk.

As a balance against the slightly slower response of volunteer departments, the volunteers have certain advantages over paid departments. Most volunteer firemen can know the buildings of their communities better than paid firemen are acquainted with the buildings they protect, even in cases where paid departments have a systematic inspection program. Volunteer firemen are recruits from all trades and professions. The electricians, plumbers, doctors, clergymen, and others are familiar with all the structures in their communities. Many of the company members have helped to build various structures and know the partitions and concealed spaces through which fire may spread. They know the weak points of various structures.

Volunteer fire departments can frequently mobilize more man power than the paid department of many communities outside the larger cities. It is not unusual for a small paid department to have less than 10 or 12 men on duty, whereas a volunteer department can mobilize a substantial force to make full use of available equipment. A paid department may only have enough men to operate one stream from each pumper, whereas volunteer departments can use their apparatus to the limits of its capacity.

Many volunteer departments are much better equipped than the average fire company in paid fire departments. Communities having volunteer departments often take great pride in the department as a civic organization, and such departments possess the finest and most modern types of apparatus. The city fire departments must compete with other municipal departments in obtaining appropriations and there are many companies to be equipped.

Fire prevention work conducted by volunteer departments can be on a more neighborly basis than any conducted by paid firemen. Many volunteer departments conduct very effective Fire Prevention Week campaigns to help their neighbors prevent fires. This is usually done as an advisory community service rather than as a case of "enforcement." Volunteer fire departments also can combine the resources and knowledge of all their members in all professions to build up an improved organization to overcome any recognized deficiencies in their present unit. Paid firemen frequently recognize numerous urgent needs to improve fire fighting efficiency, but are unable to get responsible authorities to take the necessary action, particularly where such needs affect the budget.

In appraising what consists of good fire fighting for volunteer departments, it must be remembered that individuals operating singly are seldom effective fire fighting agents. Insofar as our individual volunteer firemen have learned to work together as a team — just so far will they make an effective fire fighting organization.

Good fire fighting for volunteer departments requires training in the quickest, easiest, and safest ways of carrying out routine fire fighting tasks. A mere smattering of training will not do, because under fire ground conditions confusion and inefficiency will certainly result. Teamwork makes the job lighter for all hands. Thinking of the other fellow prevents accidents!

To have good fire fighting in volunteer departments, we must have good fire fighters. The human element is most important. Perhaps among the most essential qualities for good volunteer firemen are enthusiasm and pride in the organization. However, pride must be balanced with a reasonable degree of humility as fire company members must know the limitations of their own organization and equipment. There must be a true standard of measurement. Just because one volunteer company has a little more hose or a slightly greater booster tank or pumping capacity than neighboring East Podunk it does not mean that they should be self-satisfied. That does not prove that they have a better department. It is important to be absolutely certain that the home community is adequately guarded against fire.

Good volunteer fire fighters must have stubbornness and determination in their make-up. Fire fighting for volunteers has a strong element of sportsmanship calling for gameness — a don't-give-up attitude. Each individual must have confidence in himself and his teammates.

The proper equipment is important, but not all important. The limited resources of a small volunteer department, used intelligently at the right time and place, may prove more effective than a large concentration of equipment inefficiently utilized. A good volunteer fireman at a rural fire soon learns what can be accomplished with chemicals and booster streams.

All too many departments point with pride at the handsome red engine that will do everything but put out a fire unless properly operated. They neglect systematic training. Accordingly, they are outside firemen who make a big show by surrounding a fire, but such tactics have never brought a fire to "unconditional surrender."

It is of prime importance to know the rudiments of fire behavior. Intelligent observation of even an ordinary fireplace fire or a candle flame can teach much of the essential lessons of how a fire spreads. As fire is an everyday occurrence, we should know a lot about it, but familiarity has bred contempt and indifference. We fail to observe the commonplace.

A simple knowledge of fire behavior will let us "case" almost any fire, so that we can cover the essential positions. We can attack over and under a fire as required, protect the front, rear, or side exposures, provide ventilation, etc. Often one or two lines of hose properly placed will do more than a dozen that are just "pouring it on."

When the fire is out, we can be sure to learn from a review of the experience. It should be possible to think of at least 50

things that happen at any fire that are subjects of training or improvement. Unfortunately, all fire fighting lessons cannot be learned from firsthand experience in each community, because such experience may come too late and is usually too costly. Through firemen's training schools, through membership in the N.F.P.A. Volunteer Firemen's Section, through membership in state and regional fire service organizations, experiences are exchanged with other fire organizations giving a constant flow of data about fires. The fire company members are able to keep alert and to keep thinking about fire matters, so that when a big blaze breaks out at 4 A.M., it will not be a strange and confusing experience, but one for which each volunteer fireman is mentally prepared. There are many reports in the files of the N.F.P.A. Department of Fire Record which tell of big fires handled successfully, because "we have been fighting this one for years in our company meetings."

One other important factor in obtaining good fire fighting in the volunteer organization is that of salesmanship. By enthusiastically boosting his department, the volunteer fireman will gain support and admiration. An appreciative public will see that the department gets the better tools it needs. The good volunteer fireman speaks with a voice of authority and experience that will be recognized. The informed community will be proud to back the good department in its efforts to protect lives and property, because the public will know that this investment in safety to lives and property is worth while.

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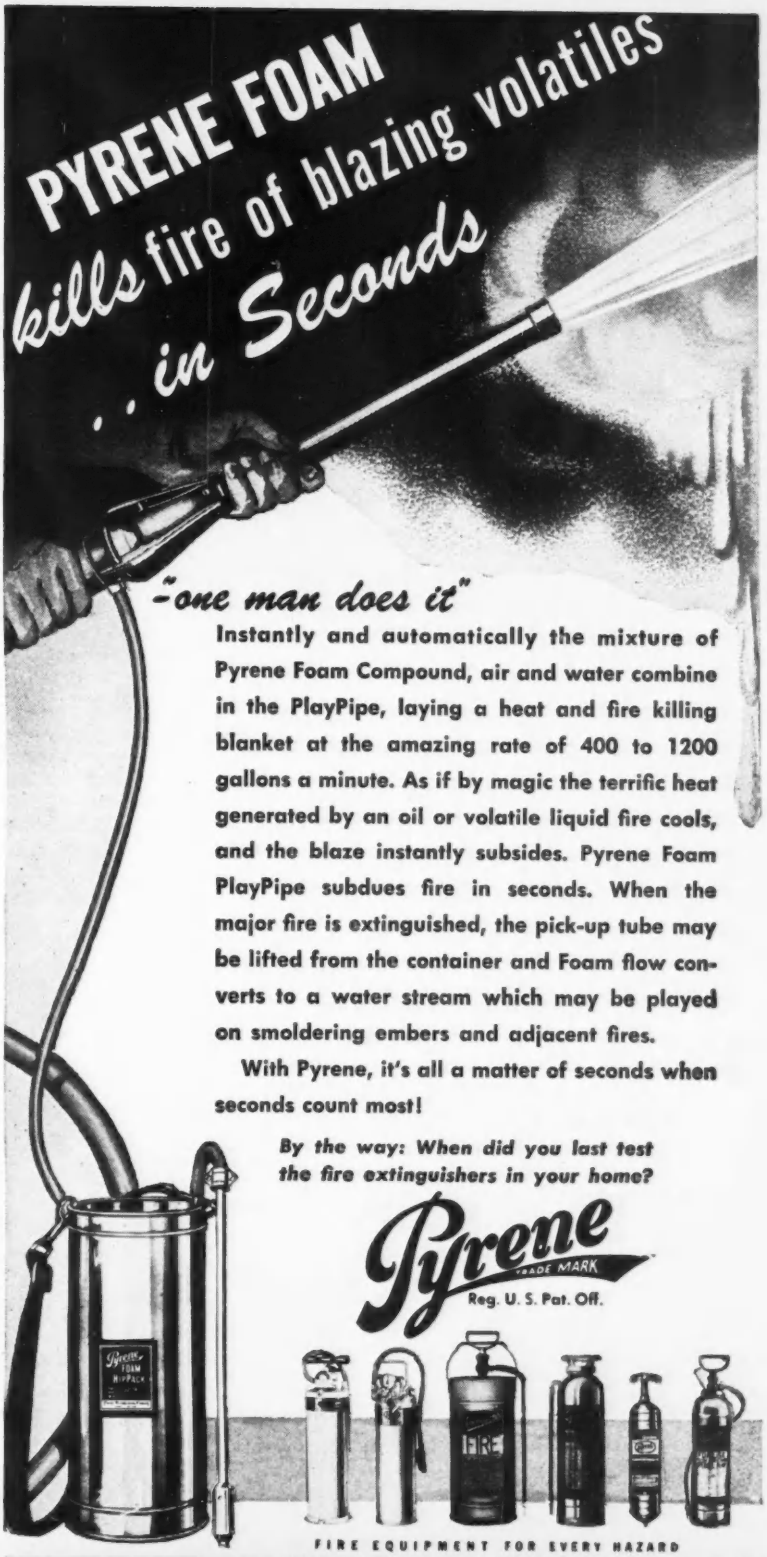
Fire School Notes

Illinois. The 21st Illinois Fire College, scheduled for June 5–8, was cancelled by action of the ODT. This statement was announced by Fire Marshal John Craig. The Fire College was to have been held in Urbana.

Indiana. A specialized training course in arson investigation and detection was held at Purdue University, Lafayette, May 22–24. The course was conducted by the Indiana Fire Service Training School.

The purpose of the course was stated to be "to acquaint fire and police personnel with the problems incident to the detection, investigation, and prosecution of arson cases and kindred crimes. It will also serve to determine the responsibility of the various agencies involved in arson cases and to provide a greater degree of co-operation between these agencies."

Kentucky. A regional school for the southeastern Kentucky firemen was held in Barbourville, May 29–21. A modern drill tower, built by the Vocational Division of Education of Union College, was used in connection with the school.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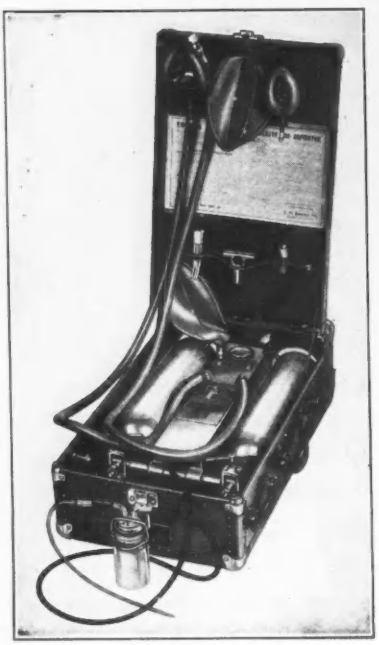
When Life Hangs by a Thread



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Grand Army Home Fire Department

Washing hose after a fire

THE Grand Army Home Fire Department of King, Wisconsin (member N.F.P.A.), is made up of 35 employees who train and function as firemen in addition to their regular civil service jobs. They are under the command of Major Waldo G. Hansen, utility officer and fire chief. The department protects over 100 frame buildings at the Grand Army Home for Veterans operated by the State of Wisconsin for the veterans of all wars, their wives or widows.

The home is located on the Waupaca "Chain O' Lakes." It covers an area extending one-half mile on all sides with a total population of 850, including 550 veterans, their wives and widows, and 175 employees.

The fire department is organized into three companies: hose, ladder, and engine. Their equipment includes a 500 g.p.m. FWD pumper purchased by the state. The apparatus is housed in a section of the garage. Hose company members hold two drills each month, and engine and ladder company members drill monthly. In addition there are monthly evacuation drills for the institution buildings, including seven large frame dormitories. The only fire resistive building is the hospital. There are very few fires at the Home but the department constantly trains to be ready for any big ones that may occur.

There is also a first aid and rescue squad staffed by one doctor and four orderlies from the hospital and equipped with an ambulance. The squad has an inhalator, drag lines and boats used for rescue work on Chain O' Lakes.

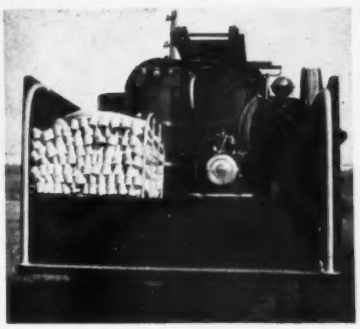
2-Pump Unit Solves Water Problem on Rural Run

THE Campbell River Volunteer Fire Department at Campbell River on northeastern Vancouver Island, Canada, serves a rural area without hydrant protection. In the three years since the company's organization in April 1942, the department has shown considerable ingenuity in solving the problem of protecting a rural area extending 3 miles to the

north, south and west. To the east are the waters of the Straits of Georgia, between Vancouver Island and the British Columbia mainland.

The main piece of fire fighting equipment is a truck equipped by members of the department, carrying 850 gallons of water in drums and tanks. There is a front mounted pump capable of supplying several lines of 1½-inch hose. For situations where it is not possible to get the truck close enough to a water source to take suction, a portable gasoline pump is carried. This pump is used to keep the tanks on the apparatus filled to supply a continuous flow of water.

The company has just finished a new 2-story fire hall, 40 x 40 feet in area, erected entirely by volunteer labor. Funds for the operation of the department are obtained from taxes and supplemented by income from dances. The company has a first aid squad equipped with an inhalator.



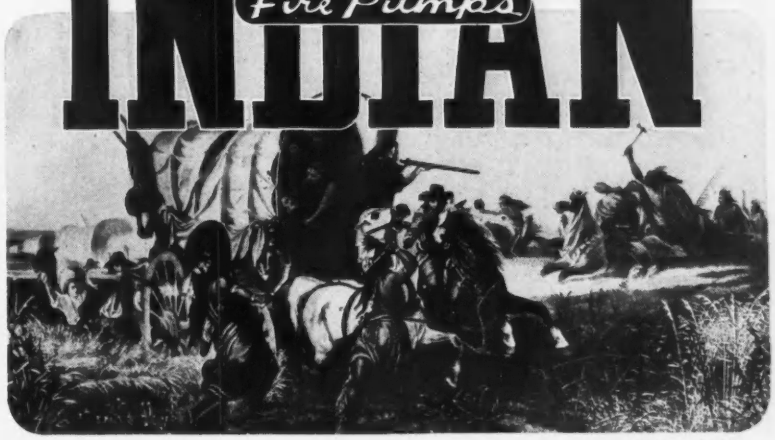
Vamps Champs in Scrap Collection

THE fire department of Cle Elum, Washington (member N.F.P.A.) has been very active in the scrap iron drives. Taking complete charge of the local drives, the fire fighters have a record for the state on a per capita basis. Firemen dismantled old cars, trucks, and junk of all description and have sent several hundred tons of scrap to iron works for the war effort. They used the funds secured by this means to purchase $1,000 in War Bonds.

During the last two years, the department has also supplied blood donors to hospitals at no charge. By forethought in testing and typing the members, several lives have been saved. Firemen have been called on 35 times to give blood.

Secretary J. L. Byars reports: "We have 24 firemen in military service and send each a carton of cigarettes monthly. (*Where do you get them?*—ED.). Also a news sheet which we send about every two weeks. Our department has purchased two trucks for fire service out of our own funds and donated them to the city. In 1932 we purchased a new 1932 Studebaker chassis, which we equipped with a 350-gallon Barton front end pump and all accessories. In 1944 we purchased a used Army truck, a Chevrolet panel ¾ ton, on which we have mounted our OCD 550-gallon Willys pump, hose, couplings, nozzles, ladders."

INDIAN Fire Pumps



Bettman Archive

A Fire Chief Tells How They Will Get You Out of a HOT SPOT!

INDIAN FIRE PUMPS have been in use in the Utica Fire Department for a number of years.

In our department these extinguishers have just about supplanted the soda and acid extinguishers for incipient fires, because of their convenience and freedom from muss. We use them for partition fires and for fires in over-stuffed furniture or bedrooms, where the volume of fire is not large and our main concern is to extinguish the blaze with a minimum of water damage. They adapt themselves well to interior fires because they are entirely portable and cause no damage.

INDIAN FIRE PUMPS are carried on all apparatus and in addition to their utility for all types of fires they are our best bet for grass fires and outside rubbish fires.

LEO R. BARRY, *Fire Chief.*

"Most Important Equipment"

D. B. Smith & Co.
Utica, N. Y.

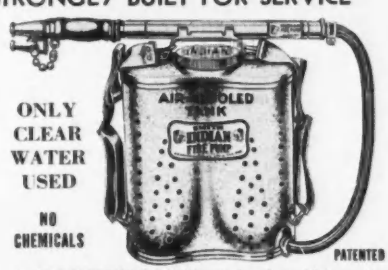
We have had many occasions to use our **INDIAN FIRE PUMPS** and consider them the most important pieces of equipment in our company.

Just two days ago we saved a dry goods store and probably several other buildings nearby with **INDIAN FIRE PUMPS** and very small water damage resulted.

We are going to get some more of your pumps in the near future.

Yours very truly,
J. S. Williams,
Chief, Fire Dept.

STRONGLY BUILT FOR SERVICE



ONLY CLEAR WATER USED

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An **INDIAN FIRE PUMP** carries slung high on the back like an Army pack and does not jostle around against hips, causing fatigue. This is a great advantage when the pump is carried any length of time.

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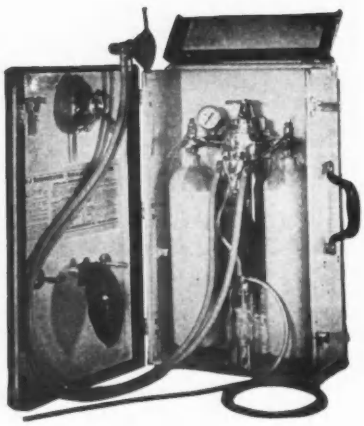

NO BODILY PRESSURE NECESSARY

In cases where breathing has stopped, the E & J Resuscitator automatically inhales and exhales for the patient. Internal injuries, severe burns, fractured ribs or pregnancy are not impediments to efficient and successful artificial respiration when this modern scientific instrument is available.

YOUR RESCUE SERVICE IS NOT COMPLETE WITHOUT MECHANICAL RESUSCITATION — AND THIS MEANS "E & J" IF YOU WANT THE BEST

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REKINDLES *from* HOT TOPICS

Gentlemen:

I write to ask if you have enough small town department readers to warrant devoting one page of the VOLUNTEER FIREMEN to a program for drill meetings to include contests or whatever might increase attendance.

And by the carrying out of this program, make the members feel they are a part of some organization.

No doubt some departments already have planned programs which would be available through your columns.

A. R. COMBS
E. Berkshire, Vt.

A Fire Bell in Every Fireman's Home

IN Keewatin, Minnesota, the fire department has installed a fire bell in the home of every member of the fire department. Thus the firemen are aroused and on their way to the fire before the rest of the town know what is happening. Chief Clyde Chappel describes the Keewatin system of notification as follows:

The bells in the firemen's homes are of 6-inch size, mounted in the rear sheds or in the kitchens. They are connected on the regular fire alarm circuit. Whenever an alarm is turned in, either from an alarm box or from the master box at the station, the bells in the firemen's homes start ringing. The firemen count the blows and can tell exactly where the fire is. They can then go directly to the fire without runing to the station and losing much time which is most valuable in the early stages of a fire. The bells make a complete round before the village siren starts to blow. This gives the firemen a head start.

The bells are also used without the outside siren for the purpose of calling the chief and the off-driver to the station. This signal is given by two blows. By ringing five times, all the firemen are summoned to the station. In case the chief wants to put in a test call just to the driver on duty, he strikes four blows before pulling the box, and the firemen and the man at the water and light plant know it is a test call. The siren doesn't blow and the firemen don't respond.

Before the war, there was a bell mounted in one of the pool halls where a lot of the firemen spent their evenings. This was a helpful system, as the siren is hard to hear inside a building where there is considerable noise. This is expecially true when the wind is blowing the sound in the wrong direction.

These bells in the firemen's homes are of great advantage in case a neighboring town

wants help. The driver on duty puts in five bells and, if it should be after midnight, it doesn't wake up the whole town. He will get just the firemen and as soon as he has a 6-man crew together, they start without further delay. No more than 6 men are sent on outside calls.

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NEW YORK CITY FIREMAN BECOMES A JUDGE

Reprinted from "The Chief," April 14

F/M DAVID P. McKEAN, who came to the NYFD (Truck 157) on January 1, 1938, with a degree in law and served 2 years fire fighting when he was transferred to Headquarters legal staff, prosecuting violations of the Administrative Code, City Ordnances, Traffic Regulations, etc., has been appointed a City Magistrate by Mayor LaGuardia. The term is 10 years and the salary $10,000 a year. The appointment is the first made from the ranks of the fire department. The Mayor said that it was in keeping with his policy of advancing "career men."

Judge McKean resigned his $3,000-a-year job of fireman. He was born in the Bronx 36 years ago. He attended St. Francis Xavier, on 16th Street; St. John's College and Brooklyn Law School. Four years ago he obtained a degree in accountancy in St. John's School of Commerce.

★ ★ ★

More or Less Fire Hazard with Octane Gasoline?

THE octane rating of a gasoline is the rating of its anti-knock quality. A 75-octane gasoline will not knock as badly as a 60-octane fuel, and the 100-octane fuel used by the Army and the Navy is practically knockless.

The fire hazard of high octane gasoline is frequently thought to be greater than the fire hazard of ordinary grades of gasoline. The octane rating has little relation to the fire hazard and, as a matter of fact, some of the high octane gasolines have slightly less fire hazard than the common variety of gasoline. The fire hazard of a gasoline is related to its volatility rather than to its anti-knock rating.

Selected from the Mutual Aircraft Conference Service Letter, January 1945.

★ ★ ★

Fire Losses

APRIL fire losses totaled $37,950,000, according to the National Board of Fire Underwriters. The twelve months' losses ending with April of this year were $438,004,000 compared with $396,354,000 for the same period last April.

Canadian fire losses for April dropped to $3,015,100 from the March total of $3,724,365.

NOW AVAILABLE!

Regular Fireman's Boots available ¾ length, reinforced instep, felt linings. New synthetic rubber, not reclaimed.

MIDWESTERN FAMOUS COMBINATION SUIT

Midwestern protective clothing is manufactured exclusively for professional firemen and policemen all over America. A great part of this protective clothing is used by government aid plants and is becoming more popular each year because of the rugged, extra durable materials used. The needs of our fighting forces come first, of course, but the same fine quality is available for you. Write your Midwestern representative for complete information and samples of material now available or write the factory direct.

OUTFIT NO. 101

Combination suit in either rubber or canvas. Can be bought separately. Detachable wool linings. Flexible elastic inner sleeve to keep out water, cold and sparks. Sturdy construction. Bunker Pants have reinforced crotch for pole sliding. Write today.

MIDWESTERN MFG. CO.
MACKINAW, ILLINOIS

Barton-American Front Mounted

AMERICAN-MARSH PUMPS

Barton-American Midship

FIRE APPARATUS CENTRIFUGAL PUMPS

PATENTED

FRONT MOUNTED FOR EASE OF OPERATION

AUTOMATIC VACUUM PRIMER

HIGH PRESSURE AT LOW ENGINE SPEED

BOOSTER TANK OPERATION WITH TRUCK IN MOTION

Offered in capacities from 250 to 600 G.P.M.

AMERICAN-MARSH PUMPS, INC., Battle Creek, Michigan
Pumps — and pumps only — since 1873

SIRENO
PRECISION MADE
ELECTRIC SIRENS

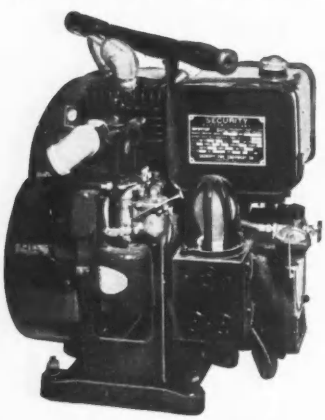
SIRENO WITH 7-INCH
RED FLASHING LIGHT

**THE UTMOST IN
DEPENDABILTY
AND
LONG LIFE**

WRITE FOR CAT. "V"

The SIRENO CO., Inc.
214 WILLIAM STREET
NEW YORK 7, N. Y.

PORTABLE
**FLOODLIGHTING
GENERATING PLANT**



This 1500 watt portable generator, with 25% reserve, especially designed for fire department service. Lightweight, rugged and compact. Air-cooled 4-cycle engine 2¾" bore x 2¾" stroke. Quick starting. Fully guaranteed, thoroughly dependable.

Also from 600 to 2500 Watts in A.C. and D.C.

Write for Catalog

SECURITY FIRE EQUIPMENT CO.
1550 Princeton Ave. Trenton, N. J.

Acme

Friday the 13th found Chicago firemen from 30 companies manning 56 pieces of apparatus, one-third of the total available, to battle this $1,000,000 lumber yard fire. Another lumber yard fire broke out at the same time on the other side of the city.

WHAT NEW EQUIPMENT WILL WE BUY?

(Continued from page 10)

LEWISTOWN, PA., Fame Fire Co., plans for new ambulance.

LITTLESTOWN, PA., the Alpha Fire Co., wants 2 pumpers.

MANOA-HAVERFORD TWP., PA., pumps and 65-foot aerial. Also ambulance and new station.

NEFFS, PA., new chassis and tank truck.

NORWOOD, PA., 750 g.p.m. pumper.

OAKS, PA., tank truck.

PENN WYNNE OVERBROOK HILLS, PA., 1,000 g.p.m. pumper.

RICHLANDTOWN, PA., high pressure fog.

ROSEDALE, PA., ambulance, auxiliary truck and portable light system.

STOWE TWP., PA., West Park Independent Fire Co., 65-foot aerial or 1,000-gallon cab type pumper.

UNIONTOWN, PA., pumper, ladder.

WEST VIEW, PA., trying to get air whistle.

YEADON, PA., 2 pumpers.

BRISTOL, R. I., 500 g.p.m. to replace 350 g.p.m. pumper.

NORTH KINGSTOWN, R. I., aerial ladder truck.

ONIDA, S. DAK., 500 g.p.m. pumper.

PIERRE, S. DAK., possibly 500 g.p.m. pumper to replace hose truck.

WILMOT, S. DAK., rural pumper.

MILAN, TENN., possibly 1,000-gallon tank truck for grass and out of city calls.

COLEMAN, TEXAS, booster on inexpensive chassis, can be replaced easier.

DENTON, TEXAS, two 750 g.p.m. pumpers.

DUMAS, TEXAS, ladder truck.

FREER, TEXAS, 500-gallon booster for rural fires.

GRAND PRAIRIE, TEXAS, 600 g.p.m. pumper with 400-gallon tank.

NEDERLAND, TEXAS, 750 g.p.m. pumper-ladder and fog truck.

NEW BRAUNFELS, TEXAS, 300 gallon booster with 500-gallon pump, 750 g.p.m. pumper.

TEXAS CITY, TEXAS, two 750 g.p.m. pumpers.

FRANKLIN, VA., 750-gallon tank for rural fires.

CATHLAMET, WASH., 500 or 750 g.p.m. pumper.

NORTH PARK, WASH., Kenworth tank and pump truck powered by Hall-Scott motor.

PORT ANGELES, WASH., 500 or 750 g.p.m. pumper.

JANE LEW, W. VA., 750 g.p.m. pumper.

MONTGOMERY, W. VA., quad combination with 65-foot aerial, or straight quad combination, new masks, rescue boat.

SOUTH PARKERSBURG, W. VA., trailer pumper and more equipment.

VIENNA, W. VA., supplement to fire truck to carry first aid equipment.

ALGOMA, WIS., quad pumper-ladder truck.

BARRON, WIS., 500 g.p.m. pumper with 500-gallon tank.

CHETEK, WIS., possibly equipment for rural fires. Plan for new station.

HORICON, WIS., 750 g.p.m. pumper.

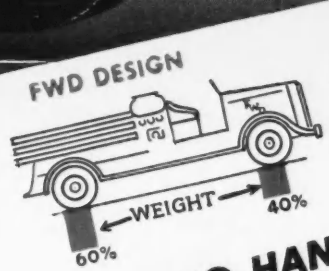
LAKE GENEVA, WIS., 750 g.p.m. pumper.

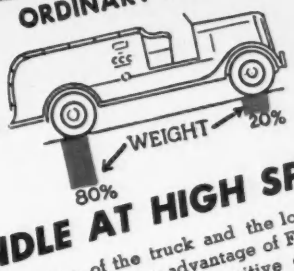
NORTH PRAIRIE, WIS., have applied for new truck.

(Continued on page 22)

FWD's FIRST

in Speed
in Safety
in Power





EASIER TO HANDLE AT HIGH SPEEDS

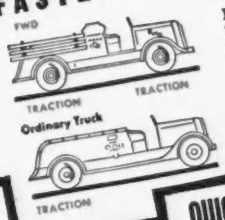
Properly balanced weight distribution of the truck and the load on all four wheels of FWD Fire Trucks, is an outstanding advantage of FWD design and basically balanced construction, which provides positive driver-control at even the highest speeds. In any emergency, FWDs handle perfectly. The weight distribution to front axle is used in powered traction for greater safety and increased performance. Speed, safety and power count in fire fighting apparatus. FWDs have *all three* at their best! WRITE FOR LITERATURE.

THE FOUR WHEEL DRIVE AUTO COMPANY, Clintonville, Wis.

Canadian Factory: KITCHENER, ONTARIO

FWDs Go Where Other Vehicles Fail
NO ROADS TOO TOUGH OR STEEP FOR FWDs

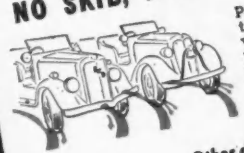
FASTER GET-AWAY



FWD power on all four wheels gets a four-way grip on any road and assures faster get-away.

Other designs, lacking drive on front wheels, lose time in get-away.

NO SKID, NO SLIP, NO SLUE!



Powered steering traction holds front wheels to direction of turns, thus minimizing skid-danger. Skidding tests, conducted on ice show 50% less skidding.

FWD... non-skid.

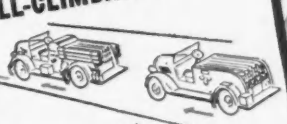
Other designs more liable to skid.

QUICK, POSITIVE, SAFE EMERGENCY STOPS

FWDs have two separate and independent 4-wheel braking systems, with brake drums on each wheel. Combined with properly balanced weight distribution, these provide the most effective braking possible.

GREATER HILL-CLIMBING ABILITY

FWD's front wheel pulling power increases hill-climbing ability. Reserve traction in all 4 wheels.



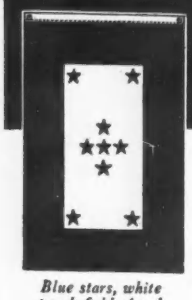
Non-powered front wheels "block" progress of truck on inclines, reducing steep hill-climbing ability.

FWD

FOUR-WHEEL-DRIVE *Fire Apparatus*

GETS TO FIRES *FASTER* and SAFER!

HONOR YOUR SERVICE MEN



Honor your fellow-firemen now serving with the armed forces, by displaying this official

SERVICE FLAG

Blue stars, white panel, field of red. Send for catalogue.

One star for each one in service. Available in any size or material desired. Send for Free illustrated catalogue and price list today.

Permanent
ROLL of HONOR

A permanent plaque, with individual names in silver on gold-bordered permanent name plates. Beautiful walnut plaque with eagle and victory torches. Write for price list today.

U. S. and Allied Flags in all sizes. Write for prices.

REGALIA MFG. CO.
Dept. 82, Rock Island, Ill.

Save Critical War Material

Fyr-Fyter equipment has proven its value in preventing small fires from becoming disastrous through the loss of life and property. Recent catastrophic fires with terrific loss of life emphasize the urgent need of fire protection. A complete line of Underwriters' Laboratories Labeled Fire Extinguishers.

HELP SAVE LIVES AND PROPERTY

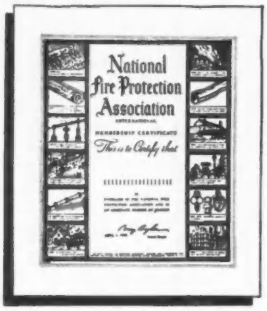
Get Fyr-Fyters for safety's sake. We advise and serve war production plants, public institutions, etc., immediately. Write us today regarding Fyr-Fyter equipment for your own protection.

THE FYR-FYTER CO.
Dept. 20
DAYTON 1, OHIO

ARMY (E) NAVY — WAR BONDS

Fyr-Fyter

N. F. P. A. Volunteer Firemen's Section
MEMBERSHIP REPORT



MEMBERSHIP PLAN

- Through the Volunteer Firemen's Section, fire companies may become members of the National Fire Protection Association. As a member fire company, the department receives at headquarters a set of all regular N.F.P.A. publications. This includes the Quarterly, the monthly News Letter, posters and bulletins.
- Each member fire company has the Volunteer Firemen magazine sent to the homes of ten men at no extra charge beyond the ten dollars annual dues paid by all associate members of the N.F.P.A. All other N.F.P.A. members pay ten dollars without the ten copies of Volunteer Firemen.
- If more than ten firemen want to receive Volunteer Firemen, an additional dollar should be sent for each extra fireman listed to receive the magazine. Individual subscriptions are not accepted from departments not members of the N.F.P.A.

THIS month's list of new companies brings the complete number of member volunteer fire companies and departments past the 1,200 mark. Twenty-eight new departments applied for membership in the Section this month. These are listed below:

F. C. Spencer Hook & Ladder Co., Guilford, Conn.
Windsor Locks Hose Co. No. 1, Windsor Locks, Conn.
Pepperell Fire Co., Lindale, Ga.
Maple Park Volunteer Fire Dept., Maple Park, Ill.
Huntertown Volunteer Fire Co., Huntertown, Ind.
Greendale Volunteer Fire Dept., Lawrenceburg, Ind.
Jos. E. Seagram & Sons, Inc., Lawrenceburg, Ind.
Corriganville Volunteer Fire Co., Inc., Corriganville, Md.
Franklin Fire Dept., Franklin, Mich.
Oshtemo Fire Dept., Oshtemo, Mich.
Perham Fire Dept., Perham, Minn.
Lockwood Fire Dept., Lockwood, Mo.
East Hanover Volunteer Fire Dept., Whippany, N. J.
Colonial Manor Fire Assoc., Colonial Manor, Woodbury, N. J.
Cherry Valley Volunteer Fire Dept., Cherry Valley, N. J.
Office of the Post Engineer, Pine Camp, N. Y.
Warrensburg Fire Co., Warrensburg, N. Y.
Youngstown Fire Dept., Youngstown, N. Y.
Associated Refineries, Inc., Duncan, Okla.
Erick Fire Dept., Erick, Okla.
Sayre Fire Dept., Sayre, Okla.
Akron Volunteer Fire Co., Akron, Pa.
Aspinwall Hose Co., No. 2, Aspinwall, Pittsburgh 15, Pa.
Frisco Fire Dept., Frisco, Texas
Dresser Fire Dept., Dresser, Wis.
Kewaskum Fire Dept., Kewaskum, Wis.
Annapolis Royal Fire Co., Annapolis Royal, N. S.
Oakville Fire Brigade, Oakville, Ont.

Supplying ½-Inch Hose Lines

(*Continued from page 8*)

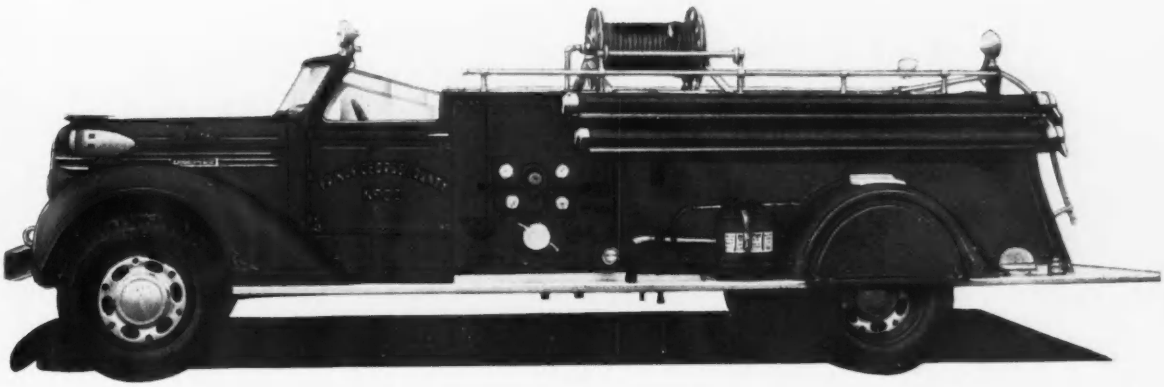
It is suggested that each department make a few practice layouts and see what they can do from various hydrants in their residential districts. The pumper placed close to the fire need not operate at much over 60 to 65 pounds pressure to give effective streams. If the pumper were placed at the hydrant, higher pressures would be needed to overcome the friction loss in the hose. This friction loss is taken care of by the direct hydrant pressure when the hydrant is used to supply the pumper placed near the fire.

Roy Williams in *Collier's Weekly*

FIRE APPARATUS **OREN** CUSTOM BUILT

"THE SOUTH'S ONLY FIRE TRUCK MANUFACTURER"

Modernizes Another Department with a Custom Built Unit



A Custom-Built Triple Combination **OREN** with 500 G.P.M. Hale Centrifugal two-stage pump, 200 gallon booster tank, modern ladders and accessories. Mounted on Diamond T. chassis and recently delivered to Tuxedo-Cheverly Volunteer Fire Department, Hyattsville, Maryland.

Each truck modernized, designed and built to meet the individual needs of the purchasing fire department . . . combining valuable features of both customer and Oren engineered ideas.

Write for Information and Catalogue

ARMY E NAVY

OREN FIRE APPARATUS COMPANY

1207–9 West Salem Avenue, Roanoke, Virginia

FEDERAL ELECTRIC COMPANY, INC.
SIREN HEADQUARTERS

its POWER clears the way!

FEDERAL
traffik-king
SIREN

Oscillating or Flashing Red Light
Single or Double Tone; Regular or Coaster with electric brake

The powerful deep tone of Federal Sirens assures protection for vehicles and pedestrian, because its warning penetrates far ahead, above other traffic noises. Instant starting, constant dependability, long, trouble-free service. Get details today.

PRECISION-MACHINED ROTOR
knife-edge ports
thin, smooth blades
ball bearings
heavy duty 6 or 12-volt motors

GET THIS BOOK FREE!
Details, illustrations, and prices on this and other Federal sirens and horns. Write today:

FEDERAL ELECTRIC COMPANY, INC.
8717 SOUTH STATE ST., CHICAGO 19, ILL.

AND . . . IN *Five* MINUTES
this DUGAS EXTINGUISHER will be ready for the NEXT FIRE!

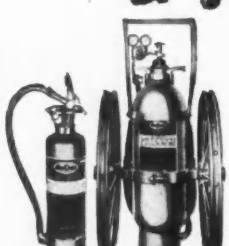
● You need never be unprepared for a second fire when DUGAS Fire Extinguishers are used . . . because you can *EASILY, QUICKLY* recharge them, on the spot.

As soon as one fire is killed, you have only to refill the chamber with PLUS-FIFTY DUGAS Dry Chemical, slip in a fresh cartridge, and IMMEDIATELY you're ready for the next, which might occur *ANYTIME.*

DUGAS Extinguishers require minimum maintenance, because they need no periodic recharge. In arctic cold or tropic heat, they retain their fire fighting effectiveness.

Easy to handle and operate . . . these portable DUGAS Extinguishers give the fire fighter maximum protection, because the dry chemical rolls up a heat-shielding screen in front of him as he moves in to snuff out the fire.

Constant fire protection like this can be yours. Write today for further information.



Dugas 15-T Hand Extinguisher
Dugas 150 Wheeled Extinguisher

A ANSUL PRODUCT
duGas
THE MASTER OF FLAME

Approved by Underwriters' Laboratories, Factory Mutual Laboratories, and Governmental Agencies.

ANSUL CHEMICAL COMPANY, MARINETTE, WISCONSIN
DUGAS DIVISION

PUMPER RACES IN TEXAS

(Continued from page 7)

hose is being pulled off the truck. When the coupling on the end of the second length of hose has cleared the tailboard, it is broken and connected to the discharge valve on the opposite side of the truck from the hydrant. After making this connection, the valve is opened to allow the water to travel to the nozzle.

At the starting signal, all six men go into action at once. The man nearest the hydrant picks up the wrench and removes the hydrant cap to accommodate the hard suction. Then he helps the man on the other side make the break and connect the hose to the discharge valve. The cab men take the hard suction, make a connection and open the hydrant.

The man on the tailboard takes the end of the hose, picks up the nozzle and runs straight out from the rear of the truck to a mark 100 feet from the rear of the truck. The other man assists him in pulling out the hose, following him about 10 feet to the rear. When the required amount of hose has been pulled out, they retreat about 10 feet to give slack to the men who connect to the discharge valve. The nozzle is screwed on as soon as they have moved back.

The time runs from the signal until water is expelled from the nozzle. If any connection blows, it is considered no time. The nozzle must also be on to complete the job. The race is usually run off in 17 to 30 seconds, making split second timing necessary. The main idea is to get water, regardless of how it might look to a good fireman. As long as water is expelled from the nozzle, it may also be spraying from every connection.

A copy of the state rules may be had by writing to Chief R. W. Palmer, President, Gulf Coast Firemen's Association, Texas City Heights, Texas.

WHAT NEW EQUIPMENT WILL WE BUY?

(Continued from page 18)

WATERLOO, WIS., possibly fog equipment.

WEST BEND, WIS., "Must have new station before buying more equipment as station is filled up."

BASIN, WYO., 500 g.p.m. pumper.

VERNON, B. C., 750 g.p.m. pumper.

COMBER, ONT., rural and town pumper.

LAKEFIELD, ONT., pumper to replace hose and chemical.

LEASIDE, ONT., aerial ladder.

NEW TORONTO, ONT., ambulance.

NIPIGON, ONT., booster tanks and fog nozzles.

SCHUMACHER, ONT., ladder truck and new fire hall.

WEYBURN, SASK., pumper to replace hose and chemical truck.

BLAZING FIRES WIPED OUT!

House Set Afire!

Firemen Start Work!

Partly Under Control!

Out—In One Minute!

MORE PROOF! FMC HIGH-PRESSURE FOG SMOTHERS FLAME—*FAST!*

Fire Fought by Local Firemen—The FMC High-Pressure Tests conducted at Endicott, N. Y., proved two things:

First: That an average fireman, without previous high-pressure experience, can use FMC High-Pressure Fog and use it effectively.

Second: That the tests showed the real value of FMC High-Pressure Fog under actual fire-fighting conditions.

Various inflammable liquid fires were touched off and *extinguished* efficiently with FMC High-Pressure Fog.

Later—a tinder-dry house was set on fire several times with gasoline and oil. And—*the last big house fire of the series was knocked down in one minute, with less than 70 gallons of water.*

And remember—these tests were set up and conducted by the local Chief and extinguished by his firemen.

Investigate! Get the facts about this new and revolutionary fire-fighting technique.

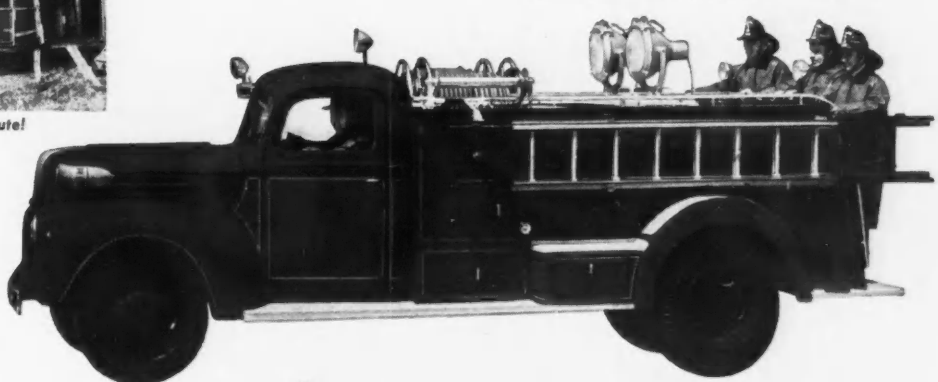
* * *

Nothing Else Like It! You get action—*fast*—with the FMC High-Pressure Fog Fire Fighter. And here's why!

The FMC Fog Fire Fighter easily maintains *800 lbs.* pump pressure—better than *600 lbs. nozzle pressure.* This high pressure gives you a combination of high velocity and finely-atomized fog—just what you need to *blast, cool* and *smother* flame. Every droplet of water is broken up into thousands of tiny particles that can be "blasted" into the source of the fire.

EFFECTIVE ON ALL TYPES OF FIRES

Stores	Gasoline	Cars and Trucks
Barns	Lumber Yards	Warehouses
Silos	Bakeries	Bowling Alleys
Farm Houses	Paint Booths	Blower Systems
Residences	Tar Kettles	Sawdust Piles
Boats	Gas	Airplanes
Docks	Oil Fires	Airport Hangars
Transformers	Hotel Fires	Quenching Tanks
Forest Fires	Restaurants	Chicken Houses
Grain Fields	Night Clubs	Grass
Factories	Gas Stations	and many others



STANDARD FMC FOG FIRE FIGHTER. A self-contained fire-fighting unit. Carries its own water supply and complete fire-fighting equipment. Provides two guns of 30 gallons each at 600 lbs. nozzle pressure.

FMC *Original* HIGH-PRESSURE FOG FIRE FIGHTER

CAN BE MOUNTED ON MOST STANDARD TRUCK CHASSIS

FOOD MACHINERY CORPORATION

John Bean Mfg. Co., 726 Hazel St., Lansing 4, Mich. · Bean-Cutler Division 426 Julian St., San Jose, Calif.

BUILDERS OF BEAN HIGH-PRESSURE PUMPS FOR OVER 60 YEARS

CAIRNS

"FLINT-FLEX"

The NEW plastic helmet combining the utmost in strength, protection and comfort, with the minimum of weight; one-piece construction with embossed reinforcing ribs; insulates against heat and electricity; highly resistant to crushing or fracture; moderate in price; prompt deliveries. . . . Write for Catalog 131, describing this and the complete CAIRNS line of helmets, firemen's personal equipment, and department record books, forms, etc.

CAIRNS & BROTHER

444 LAFAYETTE STREET ✦ NEW YORK

CIRCUL-AIR

FIRE HOSE DRYER

- Is easier to use
- Saves drying time
- Reduces hose stretch
- Prevents mildew and rot
- Improves building design
- Air-conditions as it dries

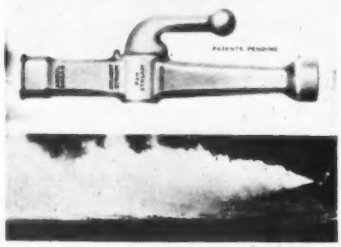
THE CIRCUL-AIR CORPORATION
6339 East Palmer Avenue
DETROIT 11, ·.· MICHIGAN

MANUFACTURERS' ANNOUNCEMENTS

Dugas Presents Dual-Stream Nozzle

DUGAS Division of Ansul Chemical Company, makers of Dugas fire extinguishers, announces a new dual-stream nozzle which greatly increases the fire fighting effectiveness of its wheeled models. The new nozzle permits the operator to apply the dry chemical on a fire either as a long range straight stream or as a shorter range fan stream. After observing extensive large scale fire tests on the company's test grounds, Factory Mutual Laboratories have given the Dugas wheeled extinguishers improved ratings.

Straight Stream - Effective Range 45 Feet



Fan Stream - Effective Range 15 Feet

With this new dual-stream nozzle, overhead fires, heretofore considered exceedingly difficult to fight, can be extinguished successfully. Tests on overhead fires were just one of many kinds of large scale fires which were quickly extinguished. Ansul's new dual-stream nozzle and other improvements which have been made to the Dugas wheeled models have been approved by the Underwriters' Laboratories and the Factory Mutual Laboratories.

All models are approved by Underwriters' and Factory Mutual Laboratories.

●

American-LaFrance Announces New Fire Extinguisher

A NEW portable fire extinguisher is announced by American-LaFrance-Foamite Corporation of Elmira, N. Y. It is the Alfite Speedex, made in 3 different sizes, Models 15, 10, and 4, and uses carbon dioxide as the fire extinguishing agent. The numbers indicate the gas capacity.

This new unit is engineered to extinguish small oil or electrical fires with no loss of the important extinguishing gas on anything but the fire itself. The Speedex operating valve lever is directly above the carrying handle. It can be instantly opened by the pressure of the hand grip and as quickly closed by releasing the hand pressure while operator is maneuvering his position. Continuous operation is also provided for.

Pyrene Executive Dies Suddenly

EDWARD G. WEED, Executive Vice-President of the Pyrene Mfg. Co. of Newark, N. J., died suddenly April 23rd, at the Toronto offices of the Pyrene Mfg. Co. of Canada, of which he had been President since he joined the Pyrene organization in 1923.

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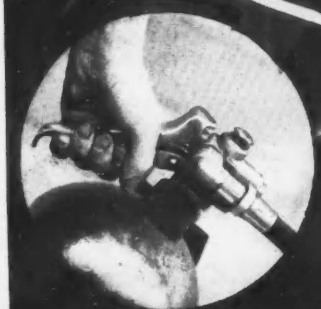

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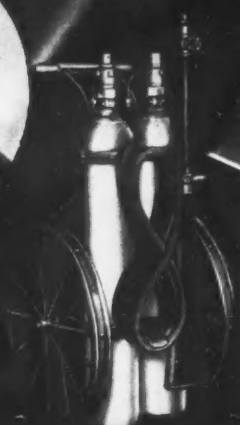

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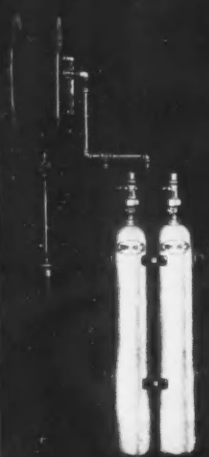

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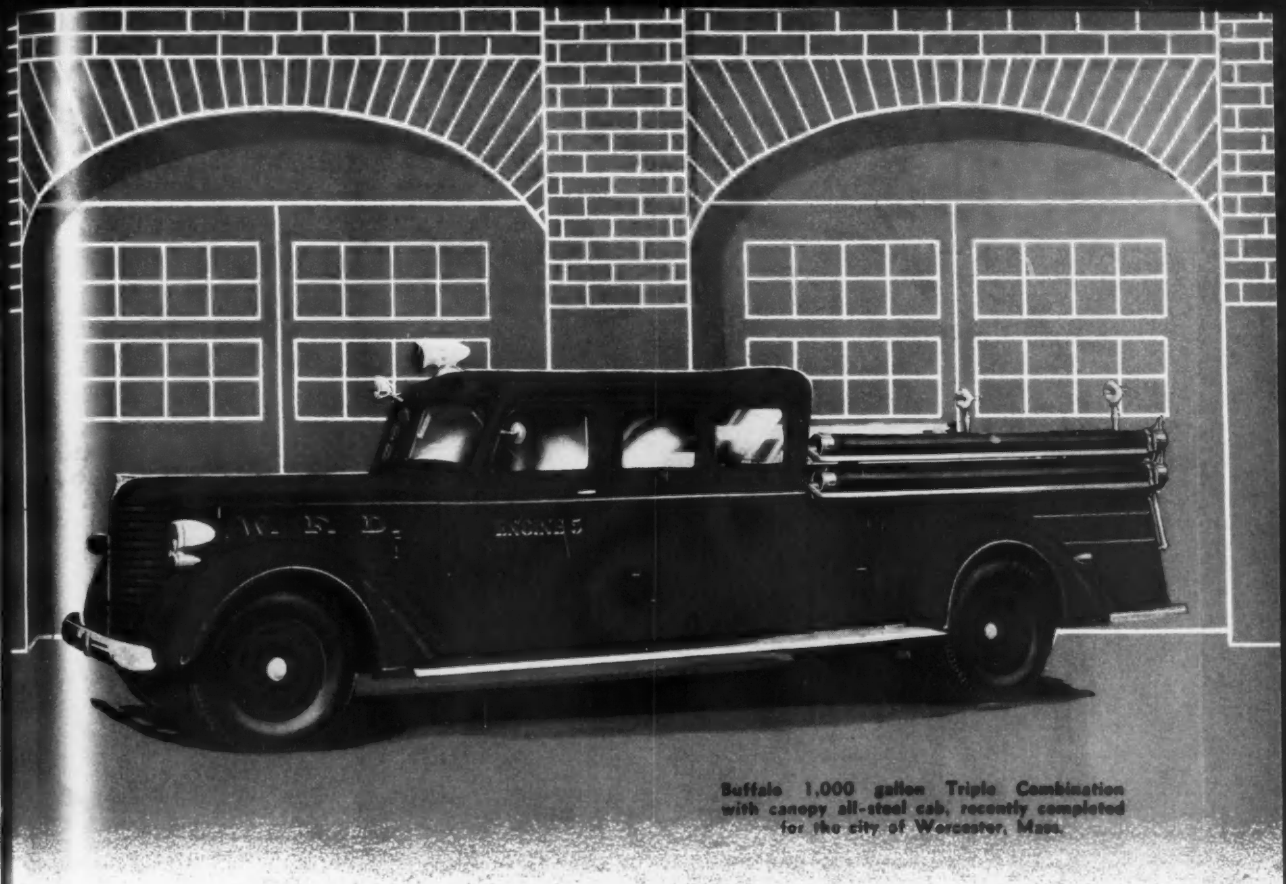

Buffalo 1,000 gallon Triple Combination with canopy all-steel cab, recently completed for the city of Worcester, Mass.

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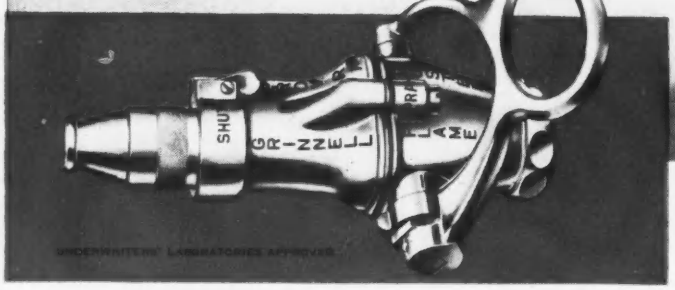

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1. **Low Velocity Spray** . . . for extinguishing stubborn fires in light, flammable liquids. Projected at a wide angle by the unique Grinnell spray tip on a 4' or 10' applicator. The spreading cone of evenly distributed, fine spray, applied directly over blaze, puts out flames quickly, with minimum water consumption.
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prevents clogging - simplifies maintenance

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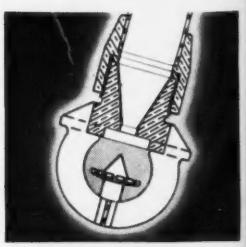
on end of the applicator breaks down the free flowing stream into finely divided spray without the use of small orifices – eliminates clogging.



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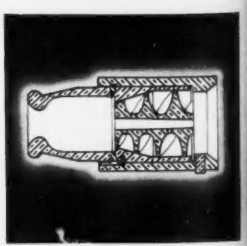

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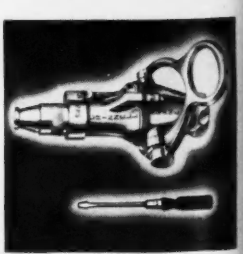
Only tool required is a screw driver. Unique corrosion-proof rubber seat for ball valve is leak-proof and permits easy operation of valve at all working pressures.